

# SCIENCE & EDUCATION Impact

Benefits from USDA/Land-Grant Partnership

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## Ag and the City

Assisting America's urban areas.

*Agriculture is commonly thought of as an exclusively rural endeavor. The work USDA and Land-Grant Universities are doing in the nation's urban areas proves that agriculture affects everybody. From tree planting and youth education to gardening and food recovery, the partnership's programs are improving the quality of life in and around American cities.*

### Payoff

- **Mile-high greenhouse growth.** The greenhouse business is blooming in Colorado, with the largest acreage of greenhouse-grown vegetables in the country. **Colorado State** Extension is helping urban greenhouse growers with plant disease identification and crop evaluation and helps produce the Internet newsletter "Mile High Growing." Sales of tomatoes, Colorado greenhouses' signature vegetable, have increased eight-fold in five years. Annual sales top \$170 million for all Colorado greenhouse-grown vegetables, which have found their niche in outlets such as specialty grocery stores, upscale restaurants and farmers markets.
- **Master Gardeners to the rescue.** Master Gardener programs across the country contribute to the lives of urban residents and the cities and towns in which they live. In **Wisconsin**, where nearly 7 percent of residents are "food insecure," extension-trained Master Gardeners contributed more than 74,000 hours of work in 2001 cultivating fresh produce. They donated more than 2,000 pounds of food to community pantries in two counties alone. **Louisiana** Extension's East Baton Rouge Parish Master Gardeners meet consumers' growing need for horticultural assistance. The retention rate of Master Gardeners in that parish is about twice the national average. In **Georgia**, Master Gardeners in Athens teach landscape education with Habitat for Humanity and donate their garden harvest to the local food bank. In Indiana the 3,250 **Purdue** Master Gardeners do work equivalent to 89 full-time employees by educating the public at gardening sessions, local events and schools.

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- **Resolving the water stink.** Late-summer algae buildup in Indiana's Eagle Creek Reservoir caused a foul taste and odor in Indianapolis' drinking water. As an alternative to continual treatment, a **Purdue** researcher working with the Indianapolis Water Co. determined what algae levels made the water unbearable. She alerted water treatment personnel when the algae was too plentiful, which meant algae was treated only when necessary and the ecosystem was spared a chemical overdose.
- **4-H for Louisiana.** 4-H programs are making a difference in the often-difficult lives of **Louisiana's** urban youth. In the Shreveport area's Caddo Junior Leadership program, older 4-Hers develop their leadership skills and participate in community service projects. They work with educational programs as diverse as urban forestry, sanitation and germ control. "There's no way my child could have gotten the education in forestry that he has received other than through the 4-H program," said one parent.
- **Baltimore gardens.** In Baltimore, 1,000 acres covering more than 15,000 vacant city lots is unproductive land, a statistic that could grow as more abandoned buildings are demolished. For more than 20 years, **Maryland** Extension has worked with citizens and community leaders to reclaim these properties for use as community gardens. The local extension horticulturist, Master Gardeners, the city and other organizations have partnered to promote these gardens, and in 2001 they established four new sites. The consortium also offers technical assistance and training to new gardeners at the community gardens.
- **Back to the farm.** Today, less than 3 percent of the American population is directly involved in agricultural production. This means that many Americans, especially those in urban areas, are unfamiliar with the farms that produce their food. In **Oklahoma**, suburban Canadian County 4-H offers agricultural literacy programs for local schools, day care centers and youth organizations. Courses teach agricultural skills ranging from agribusiness to hands-on farming. In one program, Food – Farm to Table, 532 students participated in the 2000-2001 school year,

and they showed a 75 percent retention of the material. **Maryland** Extension assists in a similar program in suburban Montgomery County called Close Encounters with Agriculture.

- **Tree cities.** Urban forestry brings beauty, lower energy costs, improved water runoff and increased property value to cities. In New York, **Cornell** Extension has worked to help Syracuse develop an urban forest plan and to share information with other communities for their own tree-planting efforts. Using satellite digital analysis, an on-site inventory and a community survey, Syracuse developed a master plan, which nine other municipalities in Onondaga County have adopted as a model. Syracuse has begun to plant 1,000 to 3,000 trees, has received an award from the National Arbor Day Foundation and has been designated a "Tree City USA." **Mississippi State** trains graduate students in urban forestry, with instruction on managing trees along city streets and in municipal parks, private wood lots and utility rights-of-way. A **Maryland** program is improving the post-transplant life of trees in urban areas, and **Wisconsin** has developed a breeding process that mitigates Dutch elm disease.
- **New tourist traps.** Gardens can directly impact a state's economy by boosting tourism. Case in point is the development of the Oklahoma Botanical Garden and Arboretum's affiliate gardens and municipal assistance. In Grove, the fastest growing community in the state, tourism has increased 45 percent in the three years arboretum-affiliated Lindonwood Gardens has existed. The arboretum, associated with **Oklahoma State**, is also helping Tulsa and Oklahoma City beautify parks, greenbelts and roadways.



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